

### REMARKS

Claims 14-21 were pending as of the action mailed on March 25, 2009. Claim 1 is in independent form. Claims 14 and 17 are being amended. No new matter has been added. Support for the amendment can be found in the specification, for example, at paragraphs 69-71. Claims 46-61 are newly added.

Reconsideration of the action is respectfully requested in light of the foregoing amendments and the following remarks. This reply is being filed with a request for continued examination.

The examiner rejected claims 14-21 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,724,593 ("Hargrave").

### **Drawings**

The Applicants respectfully request that the Examiner indicate that the drawing sheets FIGS. 1-12 filed on September 30, 2003, are acceptable.

### **Section 102 Rejections**

#### Claim 14

Claim 14 recites a search method that includes obtaining a search query including one or more terms where each term is written in a first format and translating the one or more terms of the search query into a group of translated queries, each translated query having one or more terms in a second format. Thus, the terms of a received query written in one format are translated into a group of translated queries having terms written in a second format.

The method further includes searching a database for information identifying documents responsive to one or more translated queries of the group of translated queries and returning search results written in the second format to the user, the search results referencing one or more documents responsive to the one or more translated queries. Thus, the searching is performed using translated queries of the group of translated queries.

The examiner states that Hargrave discloses searching a database for information responsive to one or more translated queries of the group of translated queries at col. 2, lines

38-44; col. 4, lines 22-26; col. 5, lines 10-22; and col. 14, lines 6-8; and FIG. 9. The applicant respectfully disagrees.

Hargrave discloses techniques for computer assisted translation of text strings in a source language to target language text strings. *See* Abstract. Hargrave uses pointers mapping source language n-grams with aligned target language n-grams. *See* Abstract.

In particular, the cited portions relied upon by the examiner are associated with a translation memory. Hargrave defines a translation memory as follows:

A translation memory is a database that collects translations as they are performed along with the source language equivalents. After a number of translations have been performed and stored in the translation memory, it can be accessed to assist new translations where the new translation includes identical or similar source language text as has been included in the translation memory (col. 2, lines 39-45).

The translation memory is a machine assisted translation tool for assisting human translators rather than for autonomously performing translations. *See* col. 2, lines 30-38. In particular, it aids a translator because the translator does not have to perform the same translation of particular source text fragments twice. *See* col. 2, lines 46-51. Thus, the translation memory is used to search for a particular source text fragment that has been previously translated such that the corresponding translation can be identified.

The search in Hargrove, therefore, is performed using the input in the source format (e.g., source language), not a translated format. The object of the search is to identify the translation of the input. The translation memory of Hargrave does not disclose or suggest the claimed searching a database for information identifying documents responsive to one or more translated queries of the group of translated queries.

By contrast, claim 14 requires the search to be performed responsive to one or more translated queries of the group of translated queries. In other words, the translation has already been performed prior to the claimed searching.

The remaining portions relied upon by the examiner also relate to Hargrave's translation memory. Specifically, col. 4, lines 22-26 of Hargrave discloses an aspect to improve retrieval time from the translation memory by indexing the pre-translated text using n-grams. *See* col. 4, lines 22-26. This refers to using n-grams of the source text to search for corresponding

translations. The searching is not performed using the translated text, but instead using n-grams of the input text.

Col. 5, lines 10-22, of Hargrave read as follows:

In accordance with the present invention, the heart of the TM is an "aligned file" comprising a source language file that is broken into a plurality of text segments. Each text segment may be a word, group of words, phrase, sentence, or the like. Each source language text segment is associated or aligned with a translated text segment in a target language. Many of the operations described below are performed only on the text strings in the source language file. However, it should be remembered throughout the discussion that each source language text segment is associated with a translated text segment in the aligned file thereby allowing searches of the source language text segments to produce translated text segments also.

The cited portion describes the structure of the translation memory. In particular, the translation memory includes a mapping between source language text and translated text. Furthermore, the cited portion states that as a result a search can be performed of the source language text segments in order to identify corresponding translated text segments. Thus, the cited portion explicitly discloses searching using the source language text to identify translated text. By contrast, claim 14 requires searching a database for information responsive to one or more translated queries of the group of translated queries.

Col. 14, lines 6-8 of Hargrave discloses that matches can be found when searching even if there is not an exact match. This refers to the "fuzzy matching" disclosed by Hargrave, for example, at col. 2, lines 58-67. However, this again refers to matching a source text to a translation using the translation memory. There is no searching performed using translated queries, as required by claim 14.

Finally, FIG. 9 describes a retriever process for finding text segments in an aligned pair file similar to the text in a query. See col. 13, lines 7-21. As set forth above, FIG. 9 also describes the processing of an input query in order to search for a translation using the translation memory. Each n-gram from the input query vector is processed to identified aligned text segment pairs. See col. 13, lines 31-57. The highest scoring aligned pairs in the array are used to retrieve corresponding aligned text. See col. 13, lines 58-67. Again, the input used for the search is the original input query, not a translated query. The output result is a translated result

from the highest scoring aligned text in the translation memory. By contrast, claim 14 recites using one or more translated queries from a group of translated queries.

In responding to the applicant's previous arguments, the examiner states that the tokenizing, weighting, filtering and normalizing of the input query corresponds to the claimed translation of query terms to a group of translated queries. *See* Office Action, page 6. The applicant respectfully disagrees. The processing of the input query to generate a query vector in FIG. 9 of Hargrave does not disclose or suggest any use of a probabilistic dictionary mapping terms in a first format to a second format according to a calculated probability that a given term in the first format corresponds to a term in the second format. No probabilistic dictionary is described in the cited portions of Hargrave. The examiner only refers to a "bilingual dictionary" citing col. 1, lines 18-22. The cited bilingual dictionary, however, is simply a list of terms in one language and the corresponding translation in another language. *See* col. 1, lines 18-22. The cited bilingual dictionary is not a probabilistic dictionary. Thus, the process in FIG. 9 does not use translated queries to perform a search for information identifying documents responsive to one or more translated queries.

Therefore, none of the cited portions of Hargrave relied upon by the examiner disclose or suggest searching a database for information responsive to one or more translated queries of the group of translated queries. The applicant respectfully submits that claim 14, as well as claims 15-21, which depend from claim 14, are in condition for allowance.

### **New Claims**

Claims 46-61 are newly added. Claims 46-53 are system claims that recite features corresponding to claims 14-21 and are allowable for the same reasons. Claims 54-61 are computer storage medium claims that recite features corresponding to claims 14-21 and are allowable for the same reasons.

### **Conclusion**

For the foregoing reasons, the applicant submits that all the claims are in condition for allowance.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

Please apply any credits or charges to Deposit Account No. 06-1050.

Respectfully submitted,

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